



## DEPARTMENT OF COMMERCE

### National Institute of Standards and Technology

#### Hydrometer Calibrations

**AGENCY:** National Institute of Standards and Technology, Department of Commerce.

**ACTION:** Notice of workshop; request for comments.

**SUMMARY:** The National Institute of Standards and Technology (NIST), an agency of the United States Department of Commerce, is examining the economic impact and continued need for Hydrometer calibration services as provided to U.S. industry by the Fluid Metrology Group on NIST's campus in Gaithersburg, Maryland. NIST is also interested in whether there is a need for liquid density calibration services not presently offered by NIST. NIST publishes this notice to announce a workshop that will guide NIST planning for the future of its hydrometer calibration capabilities, and to request comments on government and industry interest in and needs for hydrometer calibrations. This is part of the effort to systematically review NIST's Measurement Services to assess gaps and ensure alignment with stakeholders' needs as discussed in the Government Accounting Office report GAO-18-445.

#### **DATES:**

*For Comments:* NIST will accept written responses to this request for information until 11:59 p.m. Eastern Time on May 2, 2023. Submissions received after that date may not be considered. Written comments in response to this notice should be submitted according to the instructions in the ADDRESSES section below.

*For Workshop:* A public workshop will be held on Tuesday May 2, 2023, from 1:00 p.m. to 3:00 p.m. Eastern Time, virtually by web conferencing. Interested parties must register to participate in the public workshop no later than 5:00 p.m. Eastern Time on Monday May 1, 2023, by sending an e-mail to [sherry.sheckels@nist.gov](mailto:sherry.sheckels@nist.gov).

**ADDRESSES:**

*For Comments:* Comments should be submitted to Sherry Sheckels, Sensor Science Division, Physical Measurement Laboratory, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8361, Gaithersburg, Maryland 20899, or by electronic mail to [sherry.sheckels@nist.gov](mailto:sherry.sheckels@nist.gov). Comments referencing studies, research, and other empirical data should include copies of the referenced materials. All comments, including attachments and other supporting materials, submitted in response to this document will become part of the public record and may be subject to public disclosure. Therefore, do not submit confidential business information or otherwise sensitive, protected, or personal information, such as account numbers, Social Security numbers, or names of other individuals.

*For tours:* Individuals or groups interested in touring the liquid density standard laboratories in person are welcome and can schedule tours by writing to the email address, [sherry.sheckels@nist.gov](mailto:sherry.sheckels@nist.gov), before or after the workshop.

**FOR FURTHER INFORMATION CONTACT:** Mail: Fluid Metrology Group, Attn: Sherry Sheckels, Hydrometer Calibrations, 100 Bureau Drive, Mail Stop 8361, Gaithersburg, Maryland 20899. Email: Sherry Sheckels at [sherry.sheckels@nist.gov](mailto:sherry.sheckels@nist.gov). Phone number: 301 975-5940.

**SUPPLEMENTARY INFORMATION:**

NIST provides calibration services for reference hydrometers to measure liquid density. These reference standard hydrometers are generally used as laboratory standards to calibrate other hydrometers.

Reference hydrometers accepted for calibration include specific gravity, proof spirit for alcohol solutions, API degrees for petroleum measurements, degrees Baume heavy and degrees Baume light, and other arbitrary scales, all subject to discussion with the technical contacts. Specific gravity hydrometers cover the specific gravity range of 0.65 to 2.

NIST is seeking comments on the following topics; however, NIST does not intend to limit the responses to the topics listed below, provided that the responses address topics that would be

useful in planning NIST offerings for liquid density calibrations service. When addressing the topics below, respondents may describe the practices of their organization or organizations with which they are familiar. Providing such information is optional and will not affect NIST's full consideration of the comment.

Topics of Interest:

1. Have you purchased hydrometer calibrations, if any, including:
  - a. If you have purchased calibrations from NIST, whether you purchased from NIST due to convenience, accuracy, cost, customer service, regulatory requirement, or some other reason;
  - b. If NIST was to terminate the hydrometer calibration service(s) you presently use, whether you have another source lined up that would meet your requirements; and
  - c. Whether it would pose a problem to your organization if the calibration service was not available at NIST.
2. How NIST calibration results are applied in your organization, including numerical examples of “leverage” to assess the economic impact of NIST hydrometer calibration services.
3. Whether hydrometer calibrations in your organization are traceable to NIST, including:
  - a. Whether you refer to NIST hydrometer publications or research to support your hydrometer measurements; and
  - b. If not directly traceable to NIST, whether you know how your hydrometer measurements compare to NIST hydrometer standards (for example by comparison against a hydrometer traceable to a NIST calibration).
4. Feedback on the cost, availability, turn-around time, business systems, and customer service provided by NIST hydrometer calibration services.
5. Whether you purchase hydrometer calibrations from another National Metrology Institute (NMI) or from another calibration laboratory, and your organization’s experience with this approach.

6. Your opinions about the range, uncertainty, quality and cost of the NIST hydrometer calibration services.

7. Whether you manufacture and sell hydrometers or sell calibrations of such hydrometers; if so, whether your hydrometer calibration values are traceable to NIST; and, if not NIST, whether you use a secondary laboratory, another NMI, or have your own primary standard(s).

Authority: 15 U.S.C. 272(b) & (c).

**Alicia Chambers,**  
*NIST Executive Secretariat.*

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